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JCS28 U.S.  
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PTO/SB/05 (03-01)

Approved for use through 10/31/2002. OMB 0851-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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UTILITY  
PATENT APPLICATION  
TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. 3994994-131915

First Inventor Ting He

Title Substrates with Small Particle...

Express Mail Label No. EL749133655US

09/912223  
07/24/01

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1.  Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)

2.  Applicant claims small entity status.  
See 37 CFR 1.27.

3.  Specification [Total Pages 21]  
(preferred arrangement set forth below)
 

- Descriptive title of the invention
- Cross Reference to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference to sequence listing, a table, or a computer program listing appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure

4.  Drawing(s) (35 U.S.C. 113) [ Total Sheets 5 ]

5. Oath or Declaration [ Total Pages ]

a.  Newly executed (original or copy)  
b.  Copy from a prior application (37 CFR 1.63 (d))  
(for continuation/divisional with Box 18 completed)
 

i.  **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.83(d)(2) and 1.33(b).

6.  Application Data Sheet. See 37 CFR 1.76

ADDRESS TO: Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

7.  CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)

8. Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)
 

- a.  Computer Readable Form (CRF)
- b. Specification Sequence Listing on:
  - i.  CD-ROM or CD-R (2 copies); or
  - ii.  paper
- c.  Statements verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

9.  Assignment Papers (cover sheet & document(s))

10.  37 CFR 3.73(b) Statement  Power of Attorney  
(when there is an assignee)

11.  English Translation Document (if applicable)

12.  Information Disclosure Statement (IDS)/PTO-1449  Copies of IDS Citations

13.  Preliminary Amendment

14.  Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)

15.  Certified Copy of Priority Document(s)  
(if foreign priority is claimed)

16.  Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.

17.  Other: .....

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

 Continuation  Divisional  Continuation-In-part (CIP) of prior application No.: \_\_\_\_\_

Prior application information: Examiner \_\_\_\_\_

Group Art Unit: \_\_\_\_\_

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 19. CORRESPONDENCE ADDRESS

<input checked="" type="checkbox"/> Customer Number or Bar Code Label	Insert Customer No. or Attach Bar Code Label			<input type="checkbox"/> or <input type="checkbox"/> Correspondence address below
Name	Edwin M. Baranowski			
Address	Porter Wright Morris & Arthur LLP 41 South High Street			
City	Columbus	State	Ohio	Zip Code 43215
Country	USA	Telephone	614-227-2188	Fax 227-2100
Name (Print/Type)	Edwin M. Baranowski	Registration No. (Attorney/Agent)	27,482	
Signature	<i>Edwin M. Baranowski</i>			Date 24 July 01

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Toll Free: 800-533-2794

**By Express Mail Receipt No. EL749133655US on July 24, 2001**

Box Patent Application  
Commissioner for Patents  
Washington, D.C. 20231

Re: Inventor: Ting He  
Serial Number: To be assigned  
Filed: July 24, 2001  
Title: SUBSTRATES WITH SMALL PARTICLE SIZE METAL OXIDE WITH  
NOBLE METAL CATALYST COATINGS AND THERMAL SPRAYING  
METHODS FOR PRODUCING THE SAME

Dear Sir:

For filing, we are enclosing the following in the above-referenced application for United States Letters Patent:

1. Utility Patent Application Transmittal Form PTO/SB/05
2. Fee Transmittal Form PTO/SB/17, including Authorization re: Deposit Account 16-2326 (in duplicate)
3. Application for United States Letters Patent (21 pages, 23 claims); Abstract; 5 sheets of drawings (Figures 1A, 1B, 2A, 2B, 3A, 3B, 4)

The Declaration and Power of Attorney will be filed at a later date.

A Certificate of Filing by Express Mail follows on page 2 of this cover letter.

Please acknowledge receipt of the foregoing by stamping the enclosed postcard and returning it to us for our file.

Very truly yours,

Edwin M. Baranowski

Enclosures

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$ 1,474)

Complete If Known	
Application Number	
Filing Date	24 July 2001
First Named Inventor	Ting He
Examiner Name	
Group Art Unit	
Attorney Docket No.	3994994-131915

## METHOD OF PAYMENT

1.  The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number 16-2326

Deposit Account Name Porter Wright Morris &amp; Arthur

 Charge Any Additional Fee Required  
Under 37 CFR 1.16 and 1.17 Applicant claims small entity status.  
See 37 CFR 1.27

2.  Payment Enclosed:

 Check  Credit card  Money Order  Other

## FEE CALCULATION

## 1. BASIC FILING FEE

Large Entity Small Entity

Fee Code (\$)	Fee	Fee Code (\$)	Fee Description	Fee Paid
101	710	201	355 Utility filing fee	710
108	320	208	160 Design filing fee	
107	490	207	245 Plant filing fee	
108	710	208	355 Reissue filing fee	
114	150	214	75 Provisional filing fee	

SUBTOTAL (1) (\$ 710)

## 2. EXTRA CLAIM FEES

Extra Claims	Fee from below	Fee Paid
Total Claims 43	-20** = 23	x 18 = 414
Independent Claims 4	- 3** = 1	x 80 = 80
Multiple Dependent		270 = 270

Large Entity Small Entity

Fee Code (\$)	Fee	Fee Code (\$)	Fee Description
103	18	203	9 Claims in excess of 20
102	80	202	40 Independent claims in excess of 3
104	270	204	135 Multiple dependent claim, if not paid
109	80	209	40 ** Reissue independent claims over original patent
110	18	210	9 ** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ 764)

\*or number previously paid, if greater; For Reissues, see above

## 3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105	130	205 85 Surcharge - late filing fee or oath	
127	50	227 25 Surcharge - late provisional filing fee or cover sheet	
139	130	139 130 Non-English specification	
147	2,520	147 2,520 For filing a request for ex parte reexamination	
112	920*	112 920* Requesting publication of SIR prior to Examiner action	
113	1,840*	113 1,840* Requesting publication of SIR after Examiner action	
115	110	215 55 Extension for reply within first month	
116	390	216 195 Extension for reply within second month	
117	890	217 445 Extension for reply within third month	
118	1,390	218 695 Extension for reply within fourth month	
128	1,890	228 945 Extension for reply within fifth month	
119	310	219 155 Notice of Appeal	
120	310	220 155 Filing a brief in support of an appeal	
121	270	221 135 Request for oral hearing	
138	1,510	138 1,510 Petition to institute a public use proceeding	
140	110	240 55 Petition to revive - unavoidable	
141	1,240	241 620 Petition to revive - unintentional	
142	1,240	242 620 Utility issue fee (or reissue)	
143	440	243 220 Design issue fee	
144	600	244 300 Plant issue fee	
122	130	122 130 Petitions to the Commissioner	
123	50	123 50 Processing fee under 37 CFR 1.17(q)	
126	180	126 180 Submission of Information Disclosure Stmt	
581	40	581 40 Recording each patent assignment per property (times number of properties)	
146	710	246 355 Filing a submission after final rejection (37 CFR § 1.129(a))	
149	710	249 355 For each additional invention to be examined (37 CFR § 1.129(b))	
179	710	279 355 Request for Continued Examination (RCE)	
169	900	169 900 Request for expedited examination of a design application	
Other fee (specify) _____			

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)

SUBMITTED BY		Complete (if applicable)		
Name (Print/Type)	Edwin M. Baranowski	Registration No. (Attorney/Agent)	27,482	Telephone 614-227-2188
Signature	Edwin M. Baranowski			Date 24 July 2001

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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Box Patent Application  
Commissioner for Patents

Inventor: Ting He  
Title: SUBSTRATES WITH SMALL PARTICLE SIZE METAL OXIDE WITH NOBLE METAL  
CATALYST COATINGS AND THERMAL SPRAYING METHODS FOR PRODUCING THE  
SAME

July 24, 2001

Page 2

**CERTIFICATE OF FILING BY EXPRESS MAIL**

I hereby certify that this Application United States Letters Patent comprising:

1. Utility Patent Application Transmittal, PTO/SB/05
2. Fee Transmittal, PTO/SB/17, including Authorization re: Deposit Account 16-2326 (in duplicate)
3. Application for United States Letters Patent (21 pages, 23 claims); Abstract; 5 sheets of drawings (Figures 1A, 1B, 2A, 2B, 3A, 3B, 4)

accompanied by an itemized postcard receipt, is being deposited with the United States Postal Service by Express Mail Receipt No. EL749133655US in an envelope addressed to: Box Patent Application, Commissioner for Patents, Washington, D.C. 20231 on July 24, 2001.

  
\_\_\_\_\_  
Edwin M. Baranowski